

CLAIMS

1. A laminated panel element (1) that comprises at least two rigid panes (2, 4), in particular glass panes, bonded to each other on their surfaces, which are each provided, over their whole surface, with an electrically conductive coating (5) that can be heated by the application of a voltage via electrodes (6), characterized in that one of the two rigid panes is provided with a cut-out (9), in a connection area, allowing the passage of external electrical connections (12, 14, 15) which are in electrical contact with the two coatings (5).
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2. The laminated panel element as claimed in claim 1, characterized in that the two surfaces of the two rigid panes (2, 4) facing each other are provided with electrically conductive coatings (5) on either side of the adhesive layer (3) that joins them.
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3. The laminated panel element as claimed in either of claims 1 and 2, characterized in that it comprises at least a third rigid pane (20) joined on its surface and in that at least one of the electrically conductive coatings (5) is provided on both sides of the central rigid pane (4).
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4. The laminated panel element as claimed in any one of the preceding claims, characterized in that both or all of the coatings (5) are electrically connected by means of a connecting device (10, 11, 12) disposed in a fixed manner in the cut-out (9).
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- 35 5. The laminated panel element as claimed in any one of the preceding claims, characterized in that both or all of the coatings (5) may be used individually selectively, within a series circuit and/or within a parallel circuit.

6. The laminated panel element as claimed in any one of the preceding claims, characterized in that the coatings (5) are composed of the same material and/or 5 of the same layer configuration.

7. The laminated panel element as claimed in any one of claims 1 to 5, characterized in that the coatings (5) are composed of different materials and/or 10 layer configurations.

8. The laminated panel element as claimed in any one of the preceding claims, characterized in that the current in at least one of the coatings (5) always 15 flows between two electrodes (6) disposed within the connection area along a predetermined path that is created by a locally isolating division of the coating.

9. The laminated panel element as claimed in any 20 one of the preceding claims, characterized by a temperature probe for detecting the effective temperature of the heating coatings.

10. The laminated panel element as claimed in claim 25 9, characterized by a switching element capable of being controlled by the temperature probe, for the interruption or the reduction of the heating current when a predetermined temperature threshold is exceeded.

30 11. The laminated panel element as claimed in any one of the preceding claims, characterized in that at least the connection area is visually covered by a mask.

35 12. The laminated panel element as claimed in claim 11, characterized in that the visual mask is obtained by the use of an opaque glass paste for the prestressed pane (2).

13. The laminated panel element as claimed in either of claims 11 and 12, characterized in that the visual mask is formed by an opaque decoration (8).

5 14. The laminated panel element as claimed in claim 13, characterized in that the opaque decoration (8) is disposed as a thin layer between the surface of the pane (2) and the heating coating (5).

10 15. The laminated panel element as claimed in any one of the preceding claims, characterized in that the electrodes (6) are formed by application and heat treatment of an electrically conductive screen-printing paste before or after the deposition of the heating 15 coatings (5).

16. The laminated panel element as claimed in claim 15, characterized in that the electrodes (6) are implemented in the form of visible decorative elements.

20 17. The laminated panel element as claimed in any one of the preceding claims, characterized in that the coatings are electrically connected to the external connections by means of removable electrical contacts, 25 in particular by means of spring contacts (14, 15).